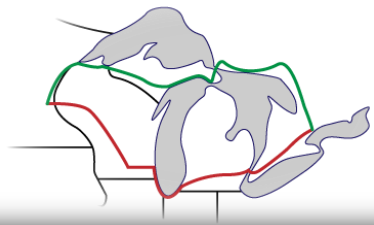


Great Lakes Regional Transportation Operations Coalition

Great Lakes Regional Transportation
Operations Coalition (GLRTOC)

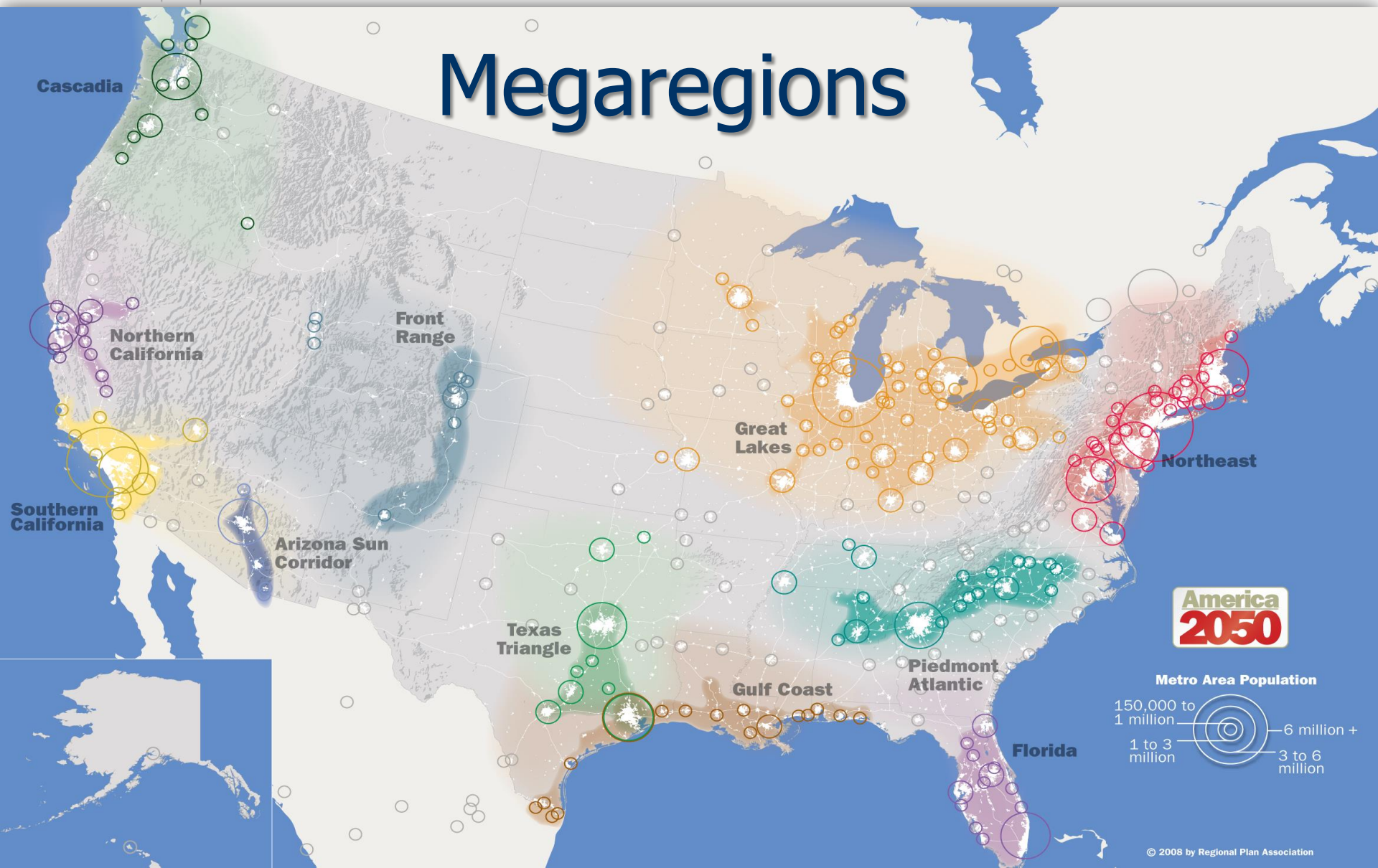
Lake Michigan Interstate
Gateway Alliance (LMIGA)

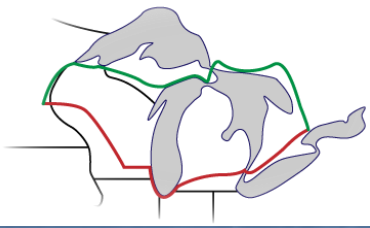
Annual Work Zone Review
February 4, 2015



Great Lakes Regional Transportation Operations Coalition

Megaregions





Great Lakes Regional Transportation Operations Coalition

GLRTOC Partners & Mission

Founded in 2010

- Chicago Skyway / Indiana Toll Road
- Illinois DOT
- Illinois Tollway
- Indiana DOT
- **Iowa DOT**
- Michigan DOT
- Ministry of Transport Ontario
- Minnesota DOT
- **Ohio DOT**
- Wisconsin DOT



Ontario



Iowa Department
of Transportation



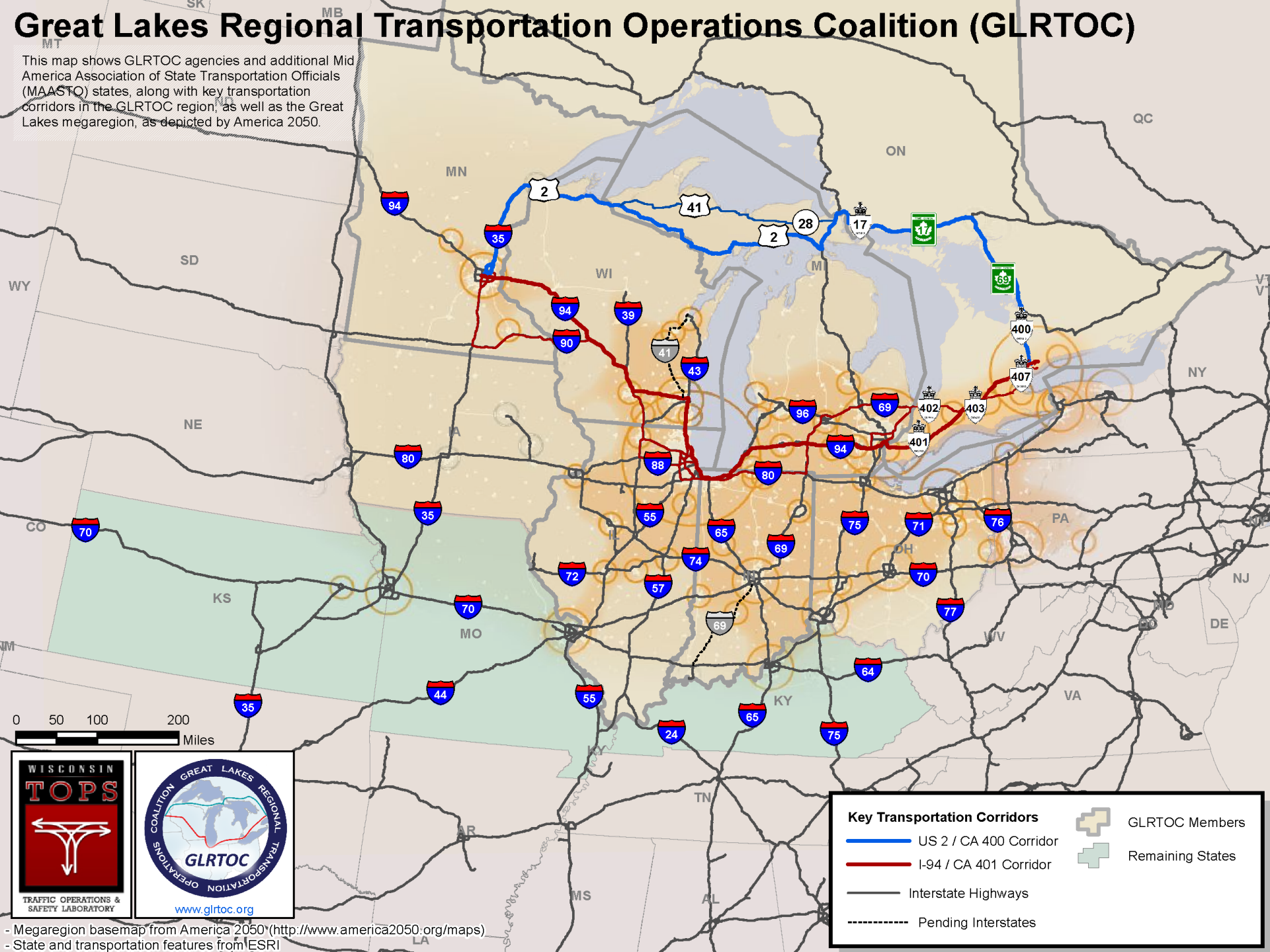
Illinois Department
of Transportation



*Improve cross-regional transportation
operations in support of regional
economic competitiveness and
improved quality of life.*

Great Lakes Regional Transportation Operations Coalition (GLRTOC)

This map shows GLRTOC agencies and additional Mid America Association of State Transportation Officials (MAASTO) states, along with key transportation corridors in the GLRTOC region, as well as the Great Lakes megaregion, as depicted by America 2050.



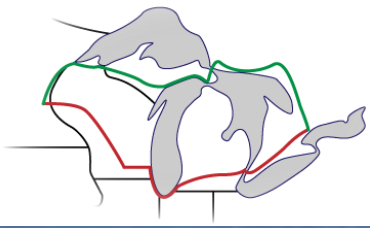
Key Transportation Corridors

- US 2 / CA 400 Corridor
- I-94 / CA 401 Corridor
- Interstate Highways
- Pending Interstates

GLRTOC Members

Remaining States

- Megaregion basemap from America 2050 (<http://www.america2050.org/maps>)
- State and transportation features from ESRI



Great Lakes Regional Transportation Operations Coalition

Online Tour

GLRTOC Tour

FHWA IOWADOT Michigan Department of Transportation Indiana OH DOT Ontario

Customs Office	Canada to U.S. border wait times	Traveller flow - U.S. bound
Blue Water Bridge Port Huron, MI / Port Huron, ON	29 min delay 5 lane(s) open	40 min delay 8 lane(s) open

International Border Crossing Information
Last updated: 2014-08-25

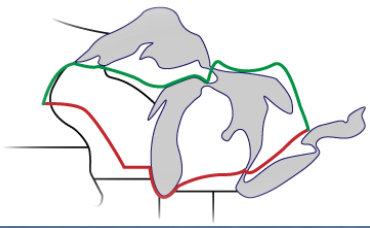
As the truck approaches the London area, the freight provider reviews congestion and real-time border wait time information to determine whether to cross at Port Huron or Detroit. The decision is made to cross in Detroit, MI. Two of the top three U.S. land border crossings - both in shipment value and number of truck trips - are between Michigan and Ontario at Detroit-Windsor and Port Huron-Sarnia. Border wait times and queues are monitored and provided collaboratively by each agency.

Map data ©

Scenario: Moving Freight Through the GLRTOC
Route Flyover
The Great Lakes Megaregion
Ontario Traveler Information
En Route Traveler Information
International Border Crossing Information
Travel Midwest Covers All Interstates on This Route
Michigan Travel Information



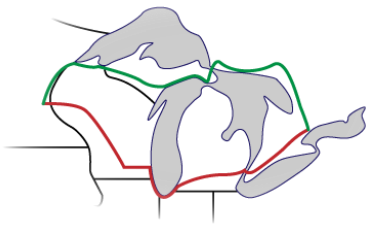
www.glrto.org/tour



Great Lakes Regional Transportation Operations Coalition

GLRTOC MCOM Steering Committee

Agency	Name	Title
Illinois DOT	Chuck Sikaras	Acting Chief, Intelligent Systems Unit
Illinois Tollway	John Benda	General Manager of Maintenance and Traffic
Indiana DOT	Ed Cox	Managing Engineer Corridor Operations
Indiana Toll Road	Robert Ladson	Infrastructure Manager
Iowa DOT	Scott Marler	Director of Traffic Operations
Michigan DOT	Tony Kratofil	Metro Region Engineer
Ministry of Transport Ontario	Peter Armoogam	Traffic Management Supervisor
Minnesota DOT	Jim Kranig	Metro RTMC Engineer
Ohio DOT	Mike Flynn	Assistant Director for Field Operations
Wisconsin DOT	Dewayne Johnson	Director of Traffic Operations

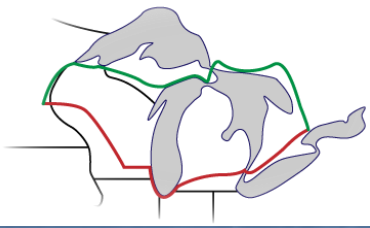


Great Lakes Regional Transportation Operations Coalition

Lake Michigan Interstate Gateway Alliance (LMIGA)



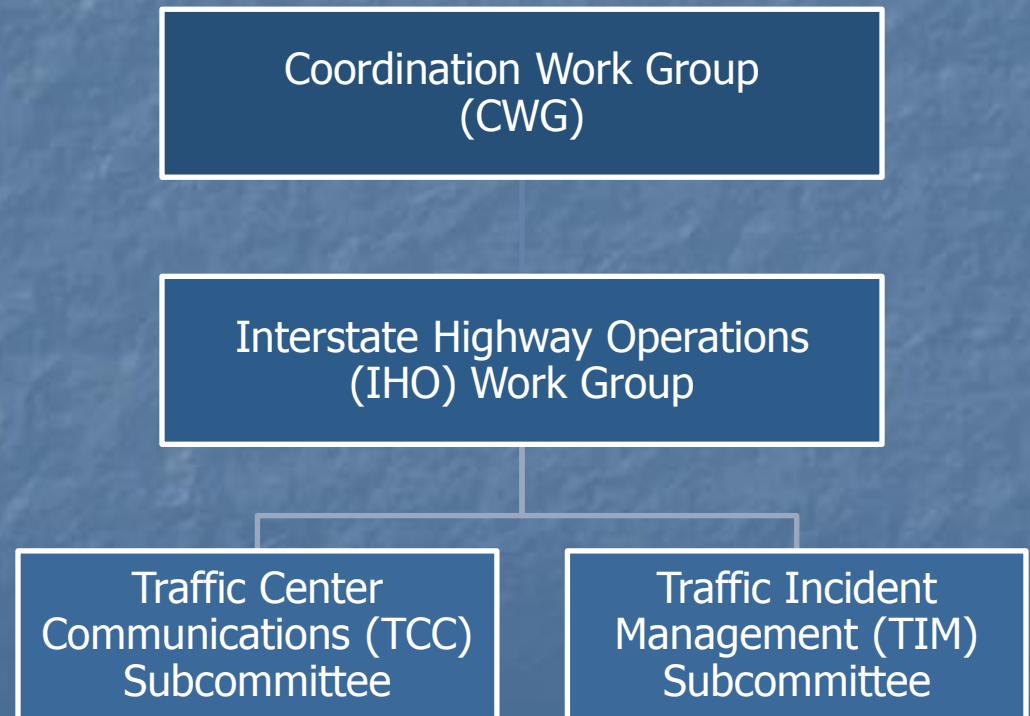
- Founded 1993
- 1993–2006, Gary-Chicago-Milwaukee (GCM) ITS Priority Corridor
- Since 2006, broader operations and geographic extent
- Focus on traffic operations along major corridors in the greater Chicago region to improve safety and mobility

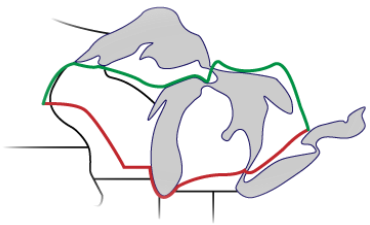


Great Lakes Regional Transportation Operations Coalition

LMIGA Organization

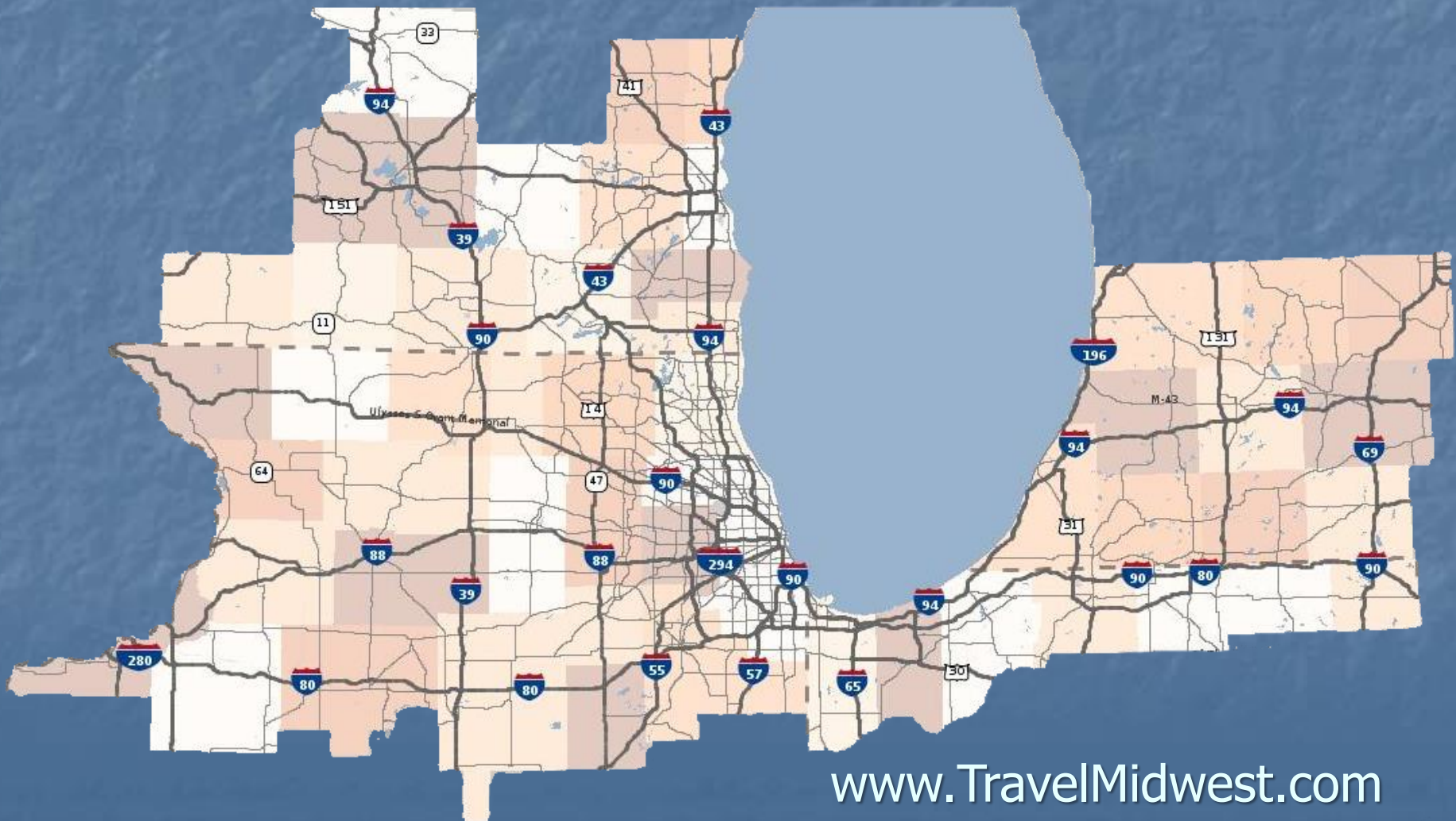
- Wisconsin DOT
- Illinois DOT
- Indiana DOT
- Michigan DOT
- Illinois Tollway
- Chicago Skyway
- Indiana Toll Road



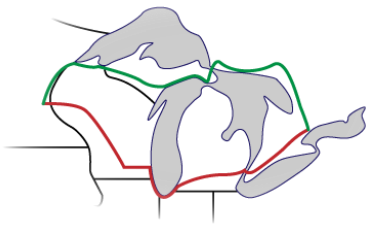


Great Lakes Regional Transportation Operations Coalition

Current LMIGA Coverage Map



www.TravelMidwest.com

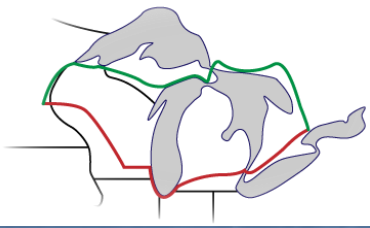


Great Lakes Regional Transportation Operations Coalition

GLRTOC Strategy

- Three Strategic Focus Areas
 - Efficient freight operations
 - Reliable mobility
 - TIM / ETO



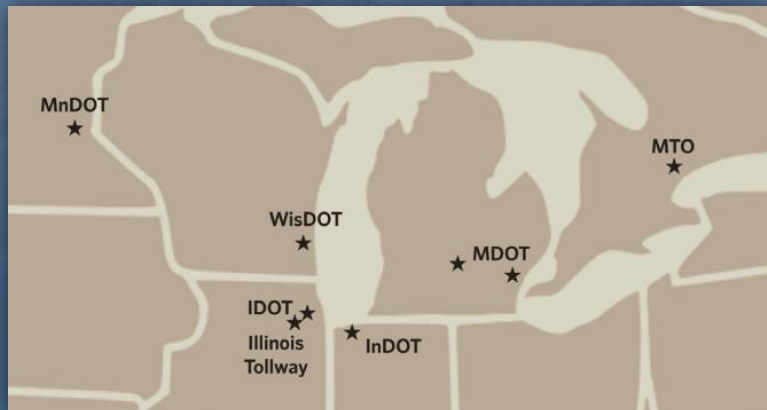


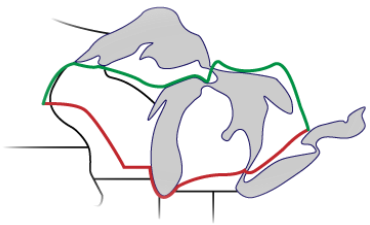
Great Lakes Regional Transportation Operations Coalition

GLRTOC MCOM FFY '11 Award

2013 - 2015

- Two Projects:
 - Center to Center Communications
 - Smart Work Zone Coordination

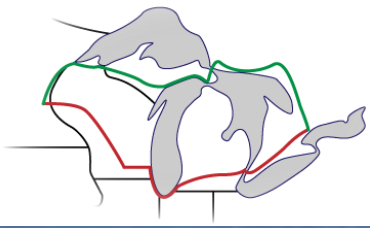




Great Lakes Regional Transportation Operations Coalition

Project 1. Connected Centers and GTIS Expansion

- Minnesota DOT and Illinois DOT Lead
- Emphasizes coordination at the megaregion scale for major incidents or weather events
 - Systems Engineering subcontract with Athey Creek
- Expands Gateway Traveler Information System
 - GTIS Expansion by UIC

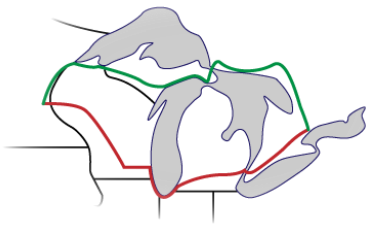


Great Lakes Regional Transportation Operations Coalition

Project 2. Smart Work Zone Coordination

- Three tasks:
 - Annual work zone review enhancements
 - Work zone mapping application
 - Work zone performance monitoring



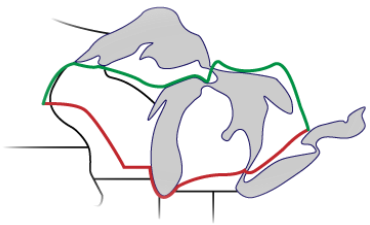


Great Lakes Regional Transportation Operations Coalition

1. Annual Work Zone Review

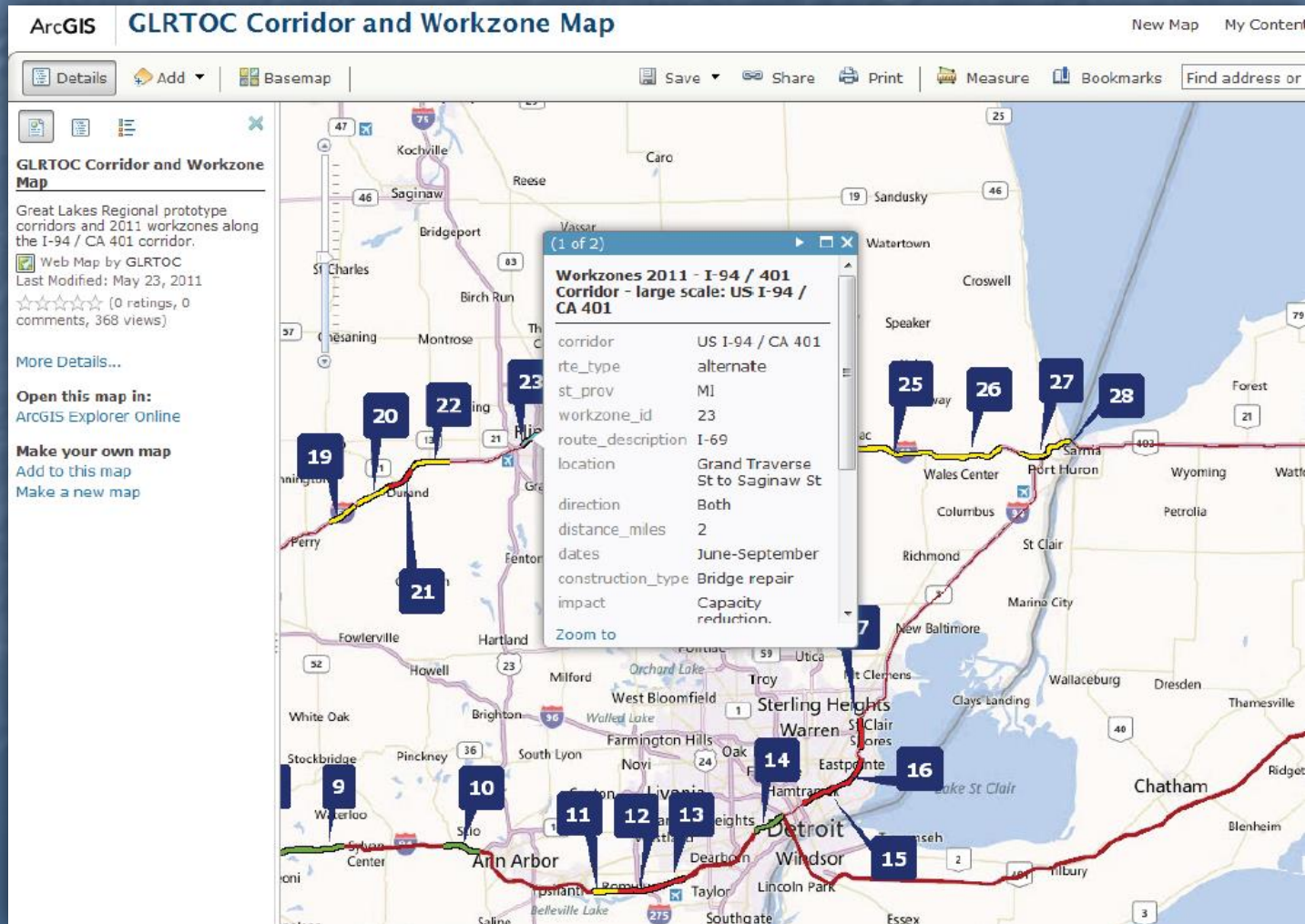
- LMIGA has been doing this for years for the Chicago region
- Among the first efforts of GLRTOC
- Held first week of February in Chicago

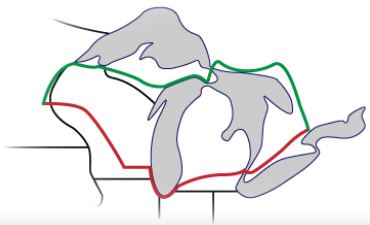
2011 Great Lakes I-94 / Hwy 401 Workzone Review							
Great Lakes Regional Transportation Operations Coalition (GLRTOC)							
March 3, 2011							
							Low
							Medium
							High
Map ID	Route	Location	Direction	Distance	Dates	Type	Impact
MINNESOTA							
1	I-35	Central Ave to Garfield Ave - Duluth	Both	3 mi	April-October	Reconstruct	Capacity reduction
2	I-35	Boundary Ave to 26th Ave in Duluth	Both	10 mi	April-November	Reconstruct	Capacity reduction
3	I-35	Near CTH 13/Midway Rd - St. Louis County	Both	1 mi	July-September	Bridge repair	Capacity reduction
4	I-35	TH 33, TH 35, and TH 23 - Carlton and Pine Counties	Both		April-June	Bridge reconstruct	Periodic capacity reduction
5	I-35	Hinkley and Moose Lake	Both	30 mi	May-November	Bridge repair	Capacity reduction
6	I-35	Hwy 8 to Hwy 95 in North Branch	Both	16 mi		Resurface	Capacity reduction



Great Lakes Regional Transportation Operations Coalition

2. Work Zone Mapping Application





Great Lakes Regional Transportation Operations Coalition

Great Lakes Regional Transportation Operations Coalition

2012 Work Zones

Click and drag the slides to filter work zones by impact severity and by month.

Click the work zones on the map to view work zone attributes.

- ☐ Show GLRTOC corridor routes
- ☒ Show work zones outside the corridors
- ☐ Show work zone labels

Impact Estimate

Medium - High



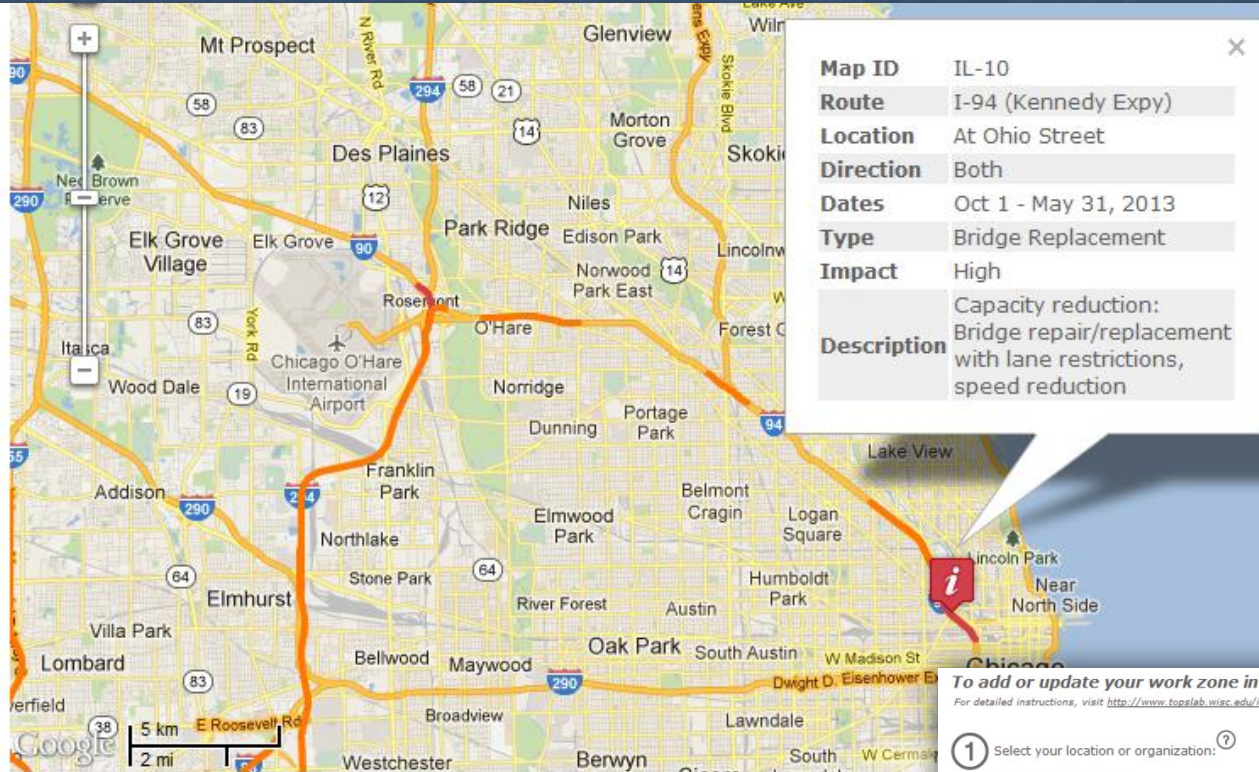
Time Frame

June - October



Enter a Map ID to zoom to a workzone that meets your selected criteria:

Go



Map ID	IL-10
Route	I-94 (Kennedy Expy)
Location	At Ohio Street
Direction	Both
Dates	Oct 1 - May 31, 2013
Type	Bridge Replacement
Impact	High
Description	Capacity reduction: Bridge repair/replacement with lane restrictions, speed reduction

Hint: To sort on multiple columns, press Shift while clicking column headers. The table is displaying 16 of

Map ID	Route	Location	Direction	Distance (mi)	Dates	Type	Impact
IL-10	I-94 (Kennedy Expy)	At Ohio Street	Both	0	Oct 1 - May 31, 2013	Bridge Replacement	High

To add or update your work zone information:

For detailed instructions, visit http://www.topslab.wisc.edu/its/glrtoctoc_upload_instructions.pdf

- Select your location or organization:
 Please select...
- If you are updating or adding work zone locations, browse to your KML file:
- If you are updating or adding work zone attributes, browse to your CSV file:

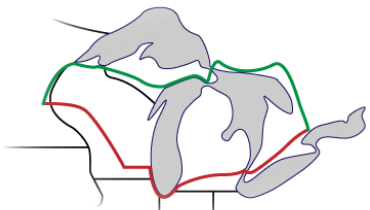
LOGIN

Username

Password

Remember Me ☐

www.glrto.org/workzones

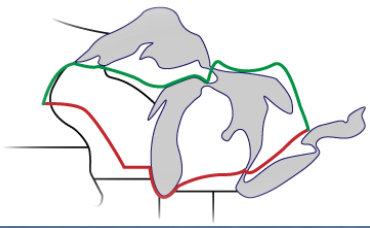


Great Lakes Regional Transportation Operations Coalition

Great Lakes Regional Transportation Operations Coalition

Work Zone and Special Event Mapping

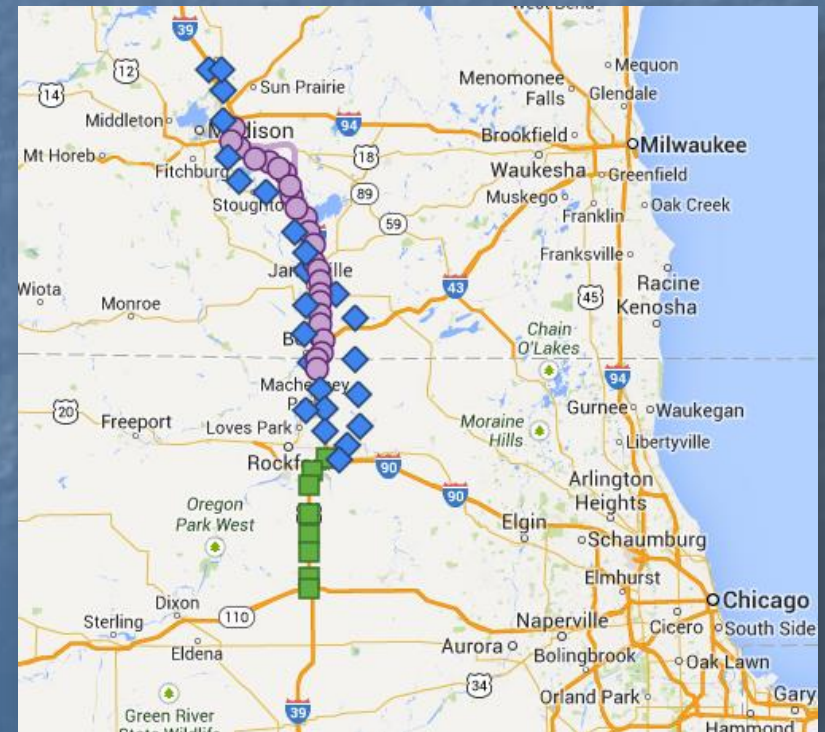


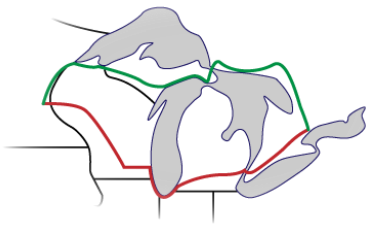


Great Lakes Regional Transportation Operations Coalition

3. Smart Work Zone Monitoring

- Pilot test segment is I-39/90 between Madison, WI and Rockford, IL
- 65-mile mostly rural corridor
- Minimal detection available
- Three agencies
- Multiple medium and high impact work zones



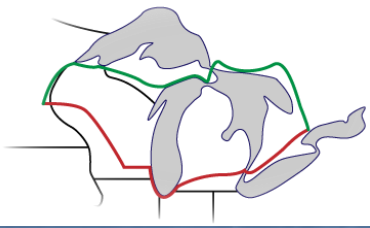


Great Lakes Regional Transportation Operations Coalition

GLRTOC MCOM FFY '12 Award

2014 - 2016

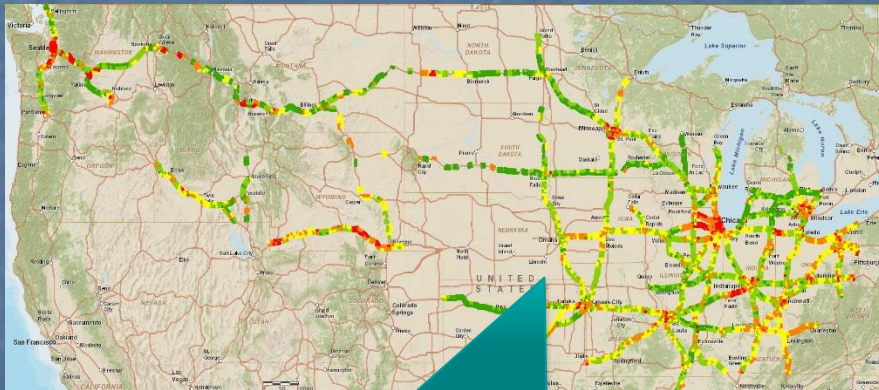
- Three Projects:
 - Interstate Corridor Performance Management
 - Interstate Highway Work Zone Coordination
 - Connected Centers Implementation



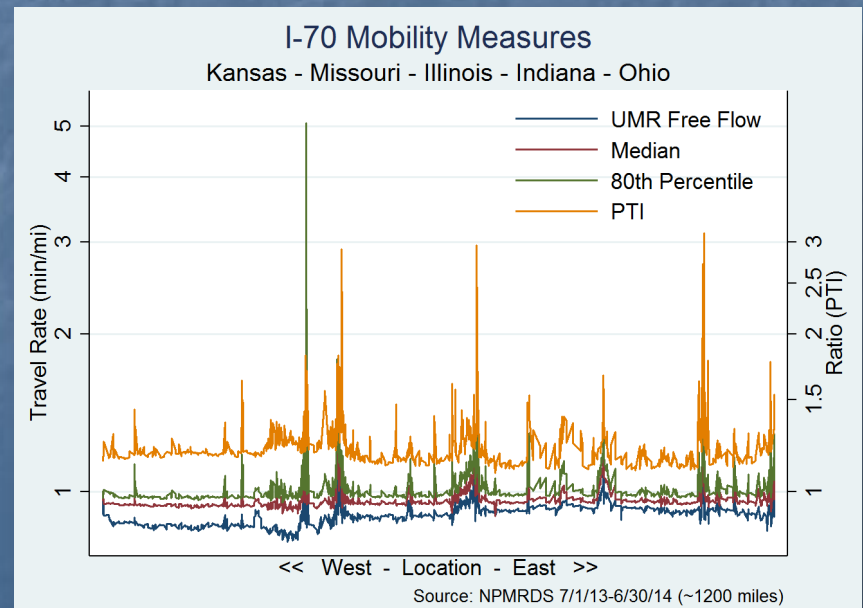
Great Lakes Regional Transportation Operations Coalition

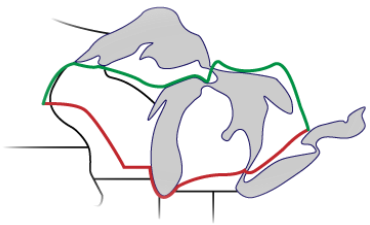
1. Interstate Corridor Performance Management

- Assess agency best practices, guide related national efforts
- Periodic reporting, after actions, investigations



www.glrto.org/map/npmrds/pti2013



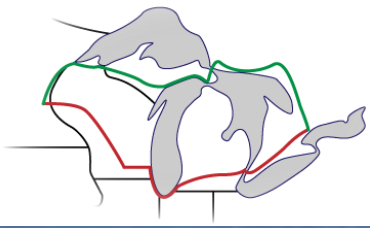


Great Lakes Regional Transportation Operations Coalition

2. Interstate Highway Work Zone Coordination

- From annual to daily collaboration
- Expand smart work zone data and dissemination
- Best practices integration



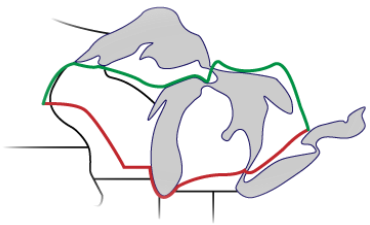


Great Lakes Regional Transportation Operations Coalition

3. Connected Centers Implementation

- Implementing prior Connected Centers project recommendations





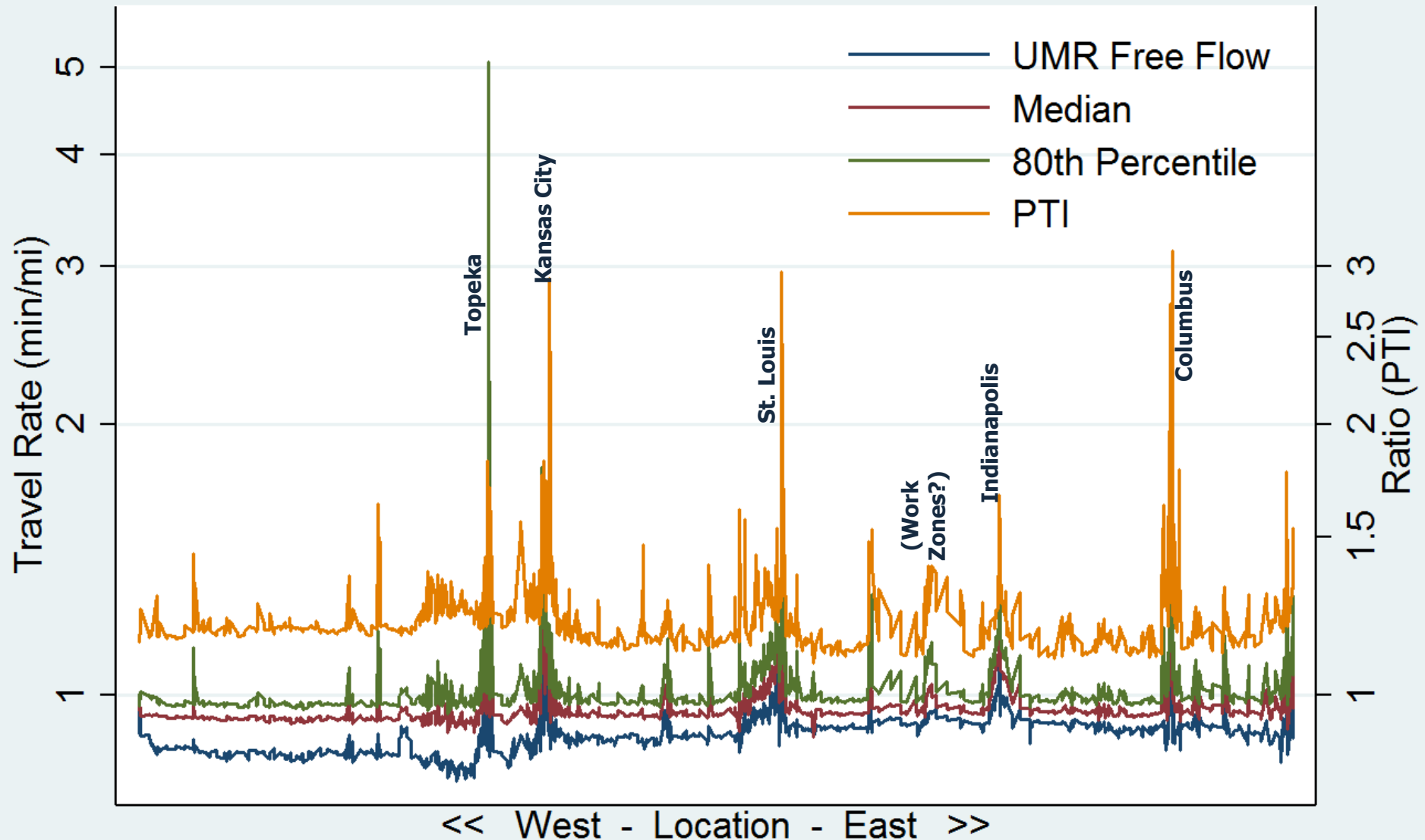
Great Lakes Regional Transportation Operations Coalition

Work Zone Performance Impacts

- Two Examples from 2013-2014:
 - I-70 in rural Illinois and Indiana
 - I-94 in Wisconsin and Indiana

I-70 Mobility Measures

Kansas - Missouri - Illinois - Indiana - Ohio



Source: NPMRDS 7/1/13-6/30/14 (~1200 miles)

June 30, 2014

I-70 Eastbound

January 1,
2014

-15 F

Kansas City

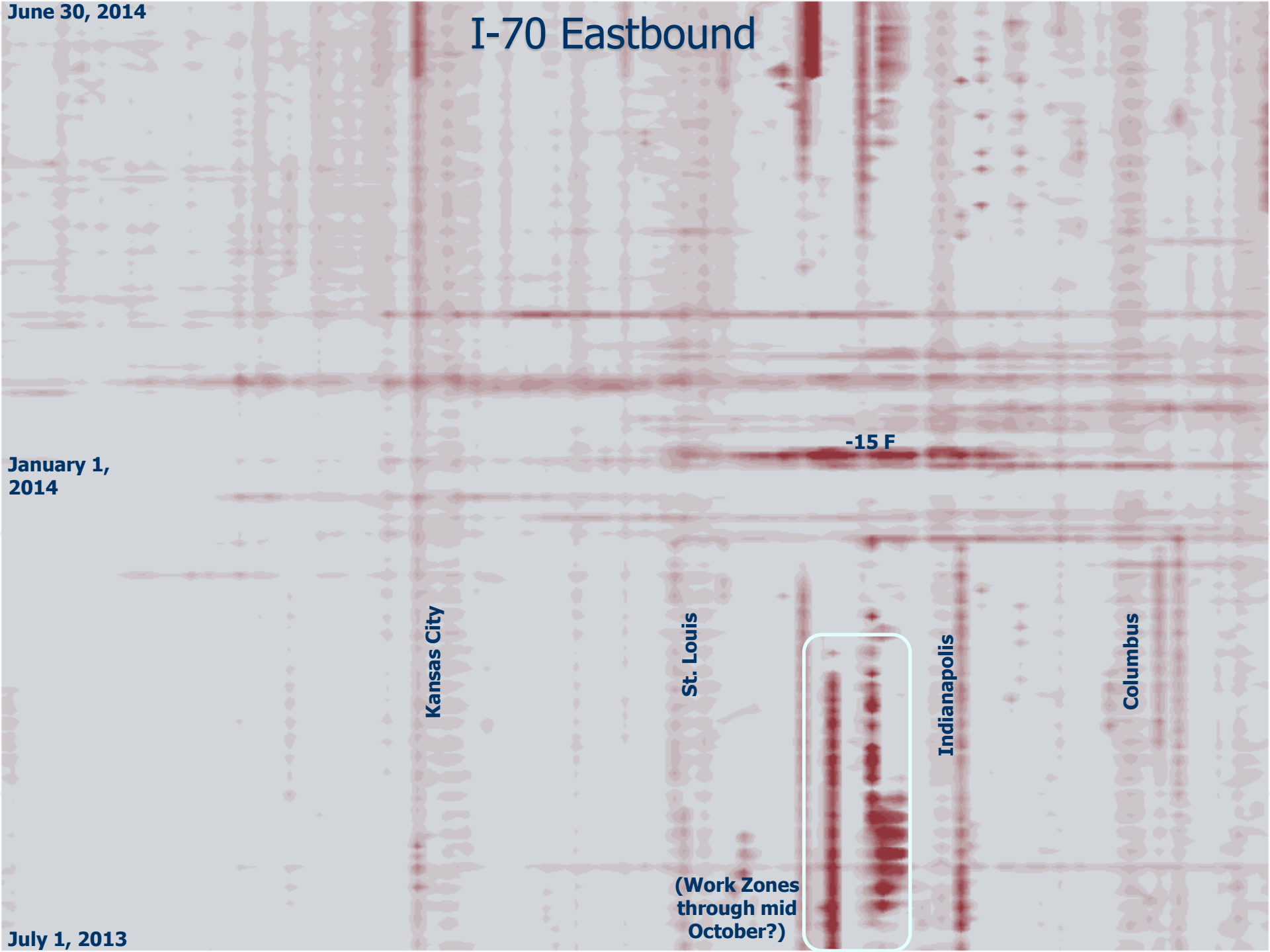
St. Louis

Indianapolis

Columbus

July 1, 2013

(Work Zones
through mid
October?)



June 30, 2014

I-70 Westbound

**January 1,
2014**

-15 F

Kansas City

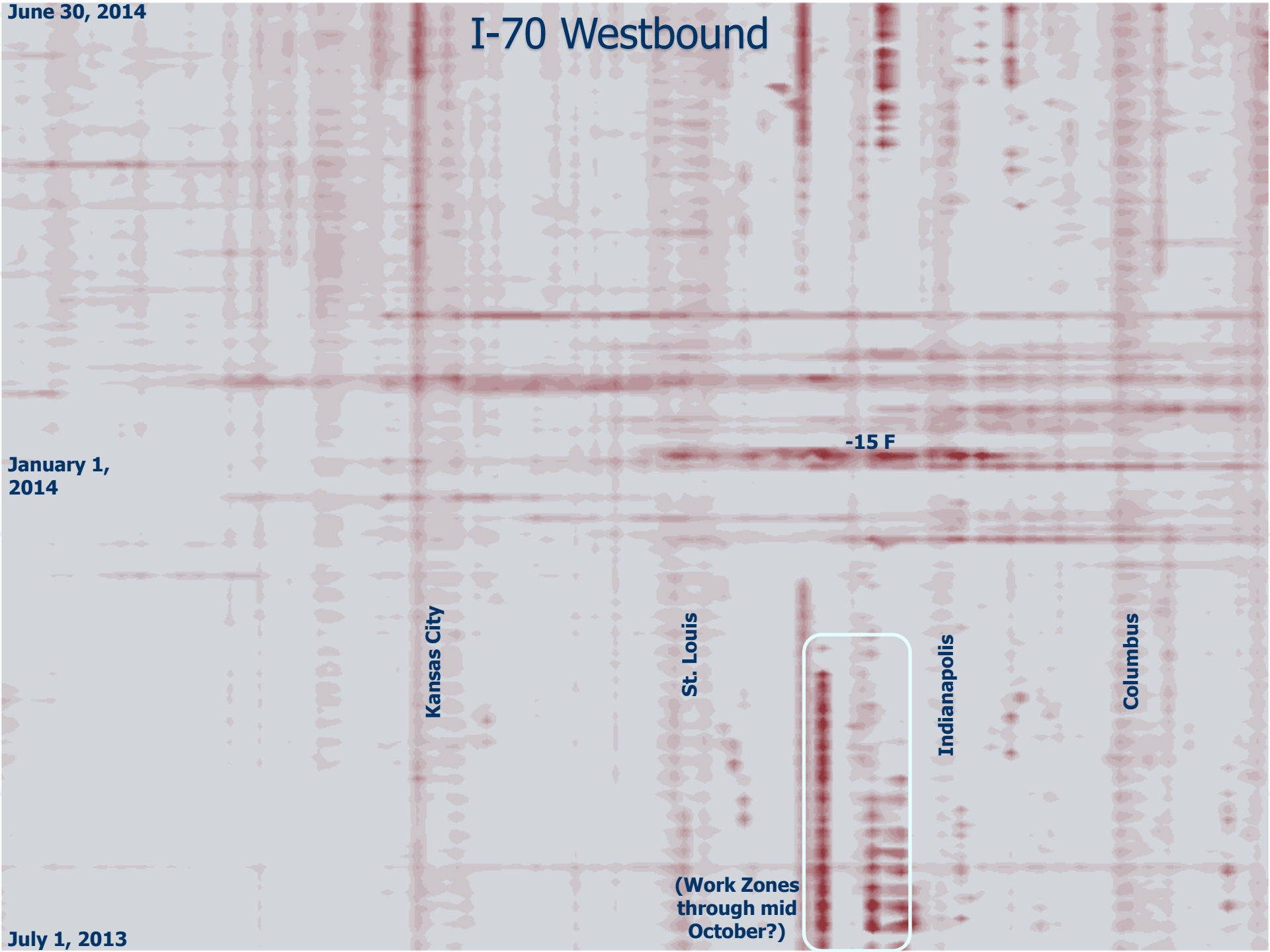
St. Louis

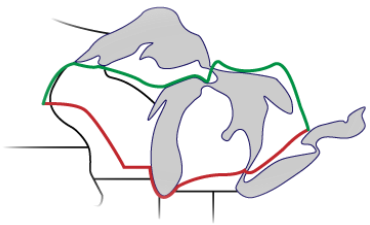
Indianapolis

Columbus

**(Work Zones
through mid
October?)**

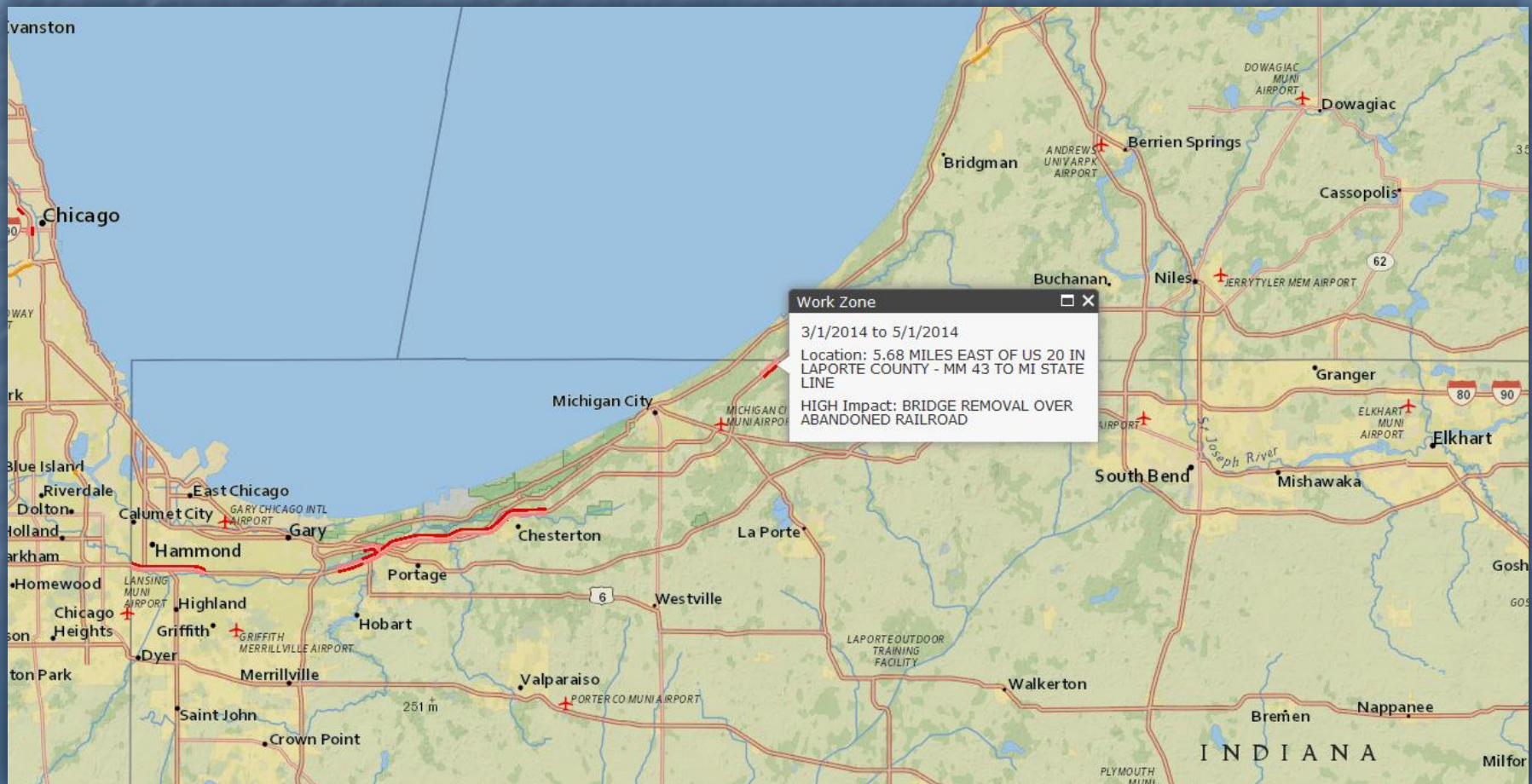
July 1, 2013

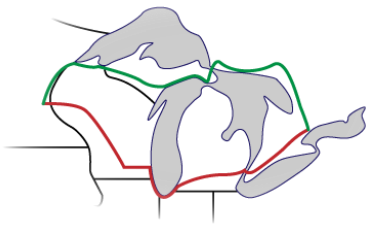




Great Lakes Regional Transportation Operations Coalition

I-94 Bridge Removal in Indiana





Great Lakes Regional Transportation Operations Coalition

I-94 Bridge Removal in Indiana

May						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

June						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

July						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

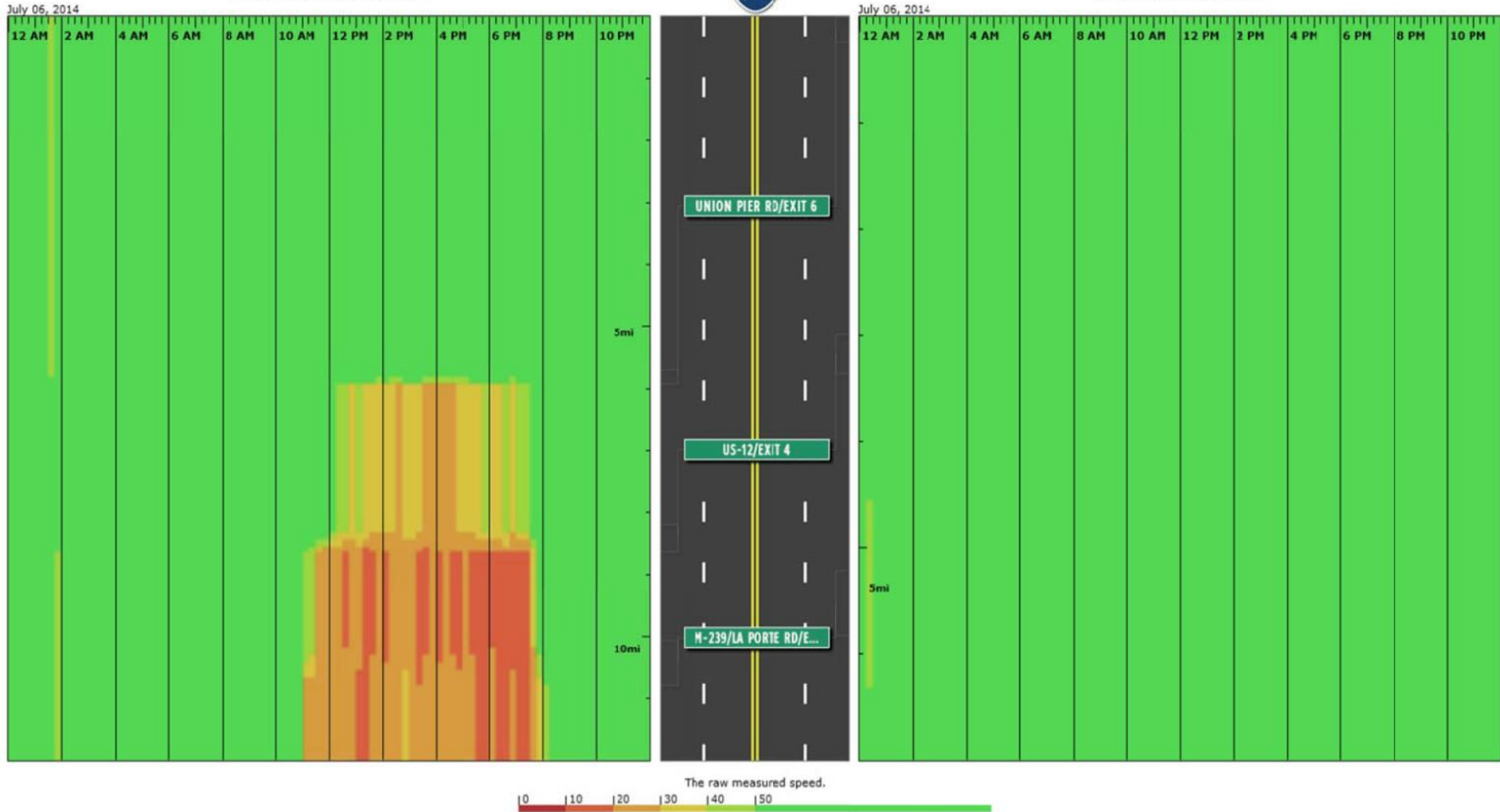
September						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

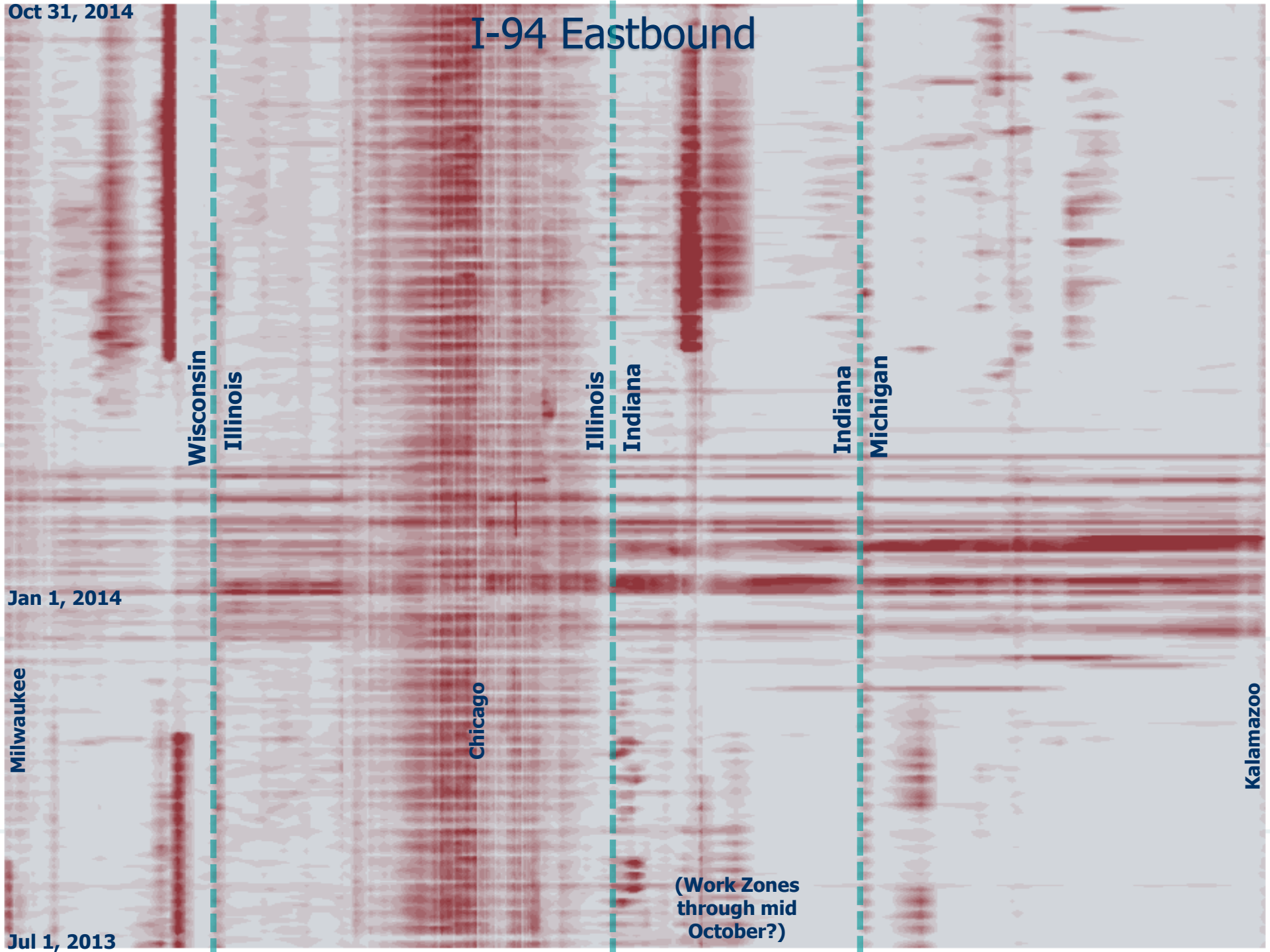
Speed on I-94
Averaged by 15 minutes for July 06, 2014

Westbound



Eastbound





I-94 Eastbound

Oct 31, 2014

Wisconsin

Illinois

Illinois

Indiana

Indiana

Michigan

Jan 1, 2014

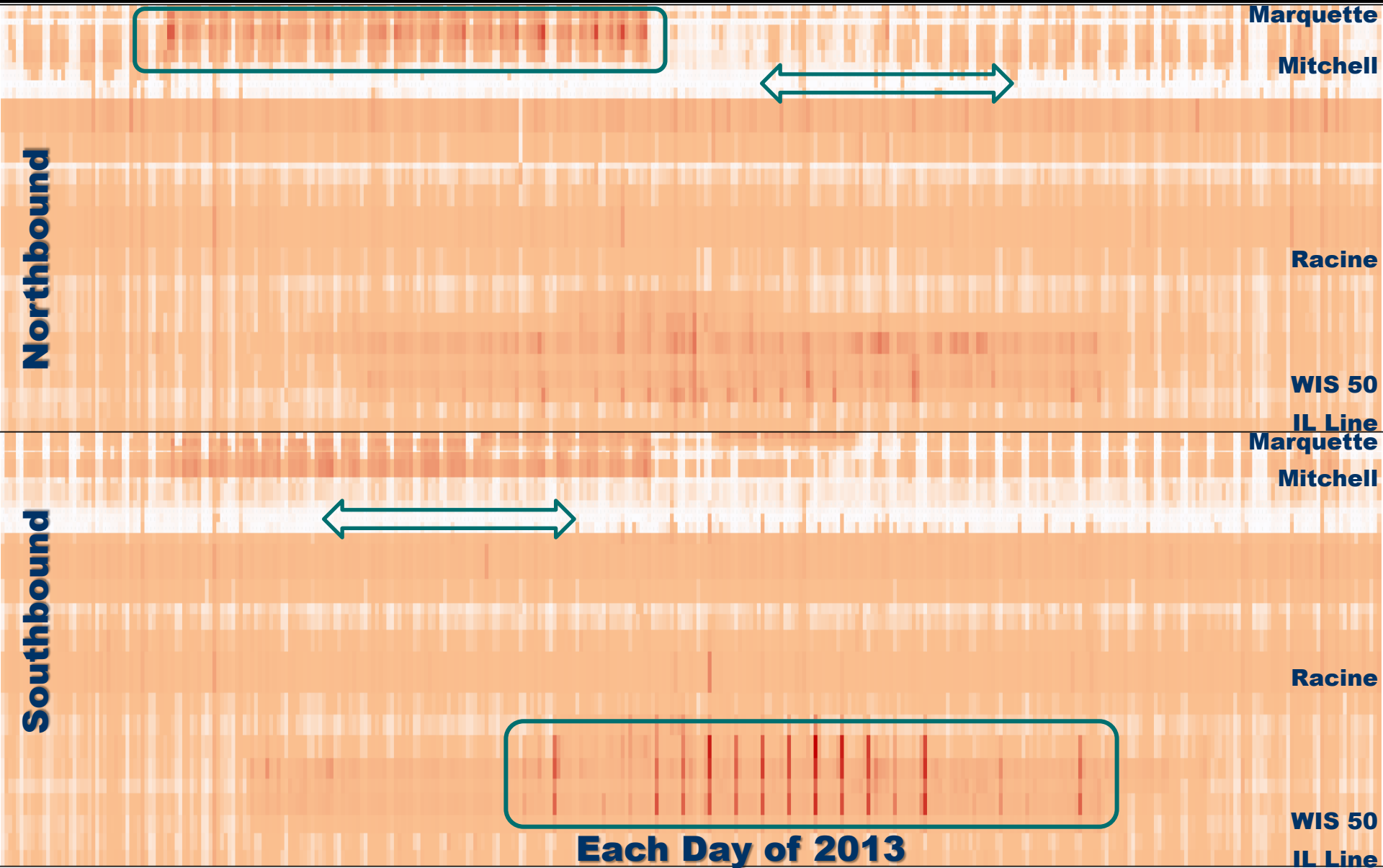
Milwaukee

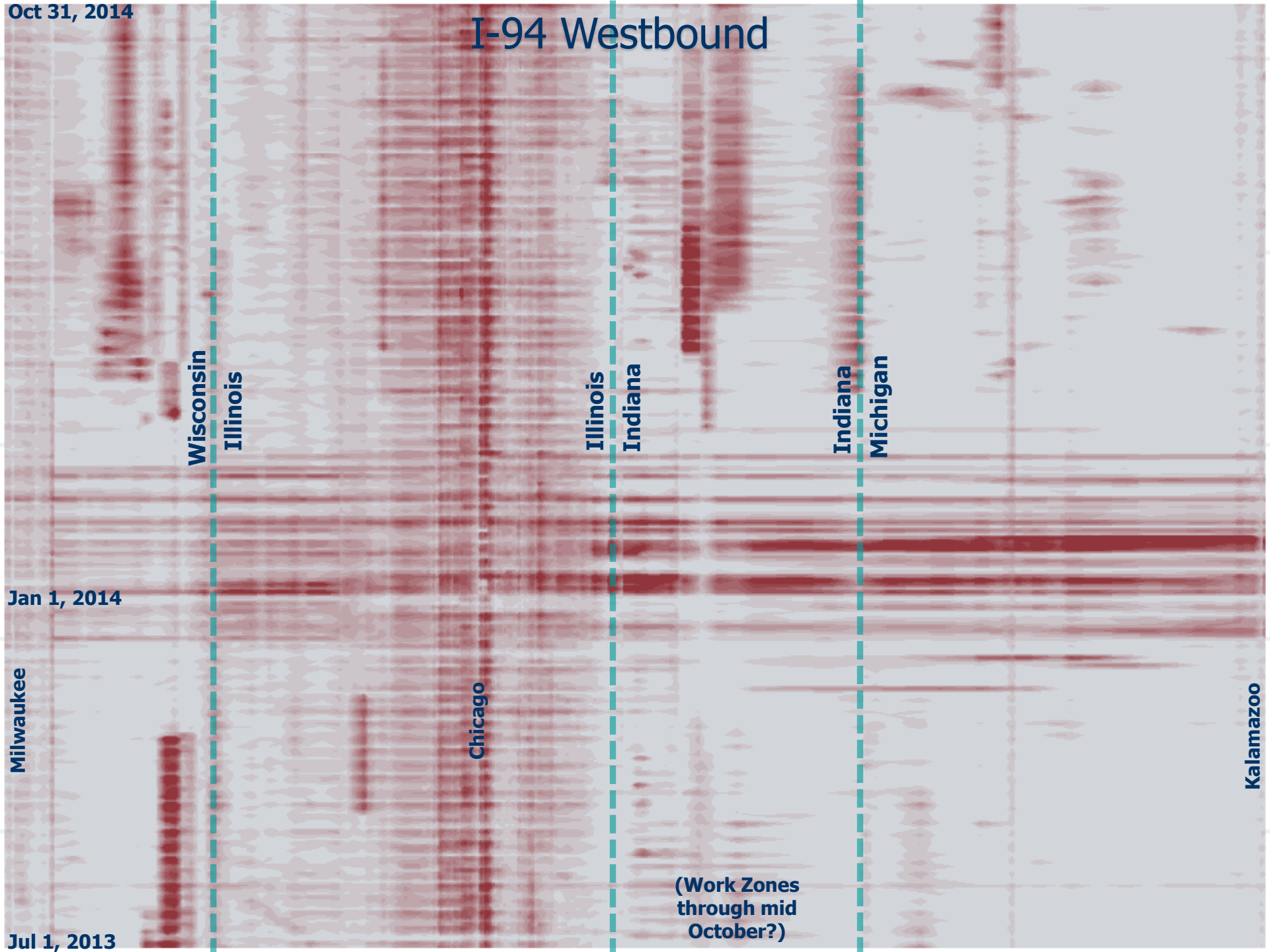
Chicago

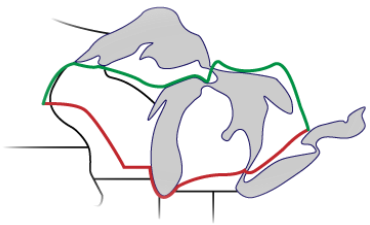
Kalamazoo

Jul 1, 2013

(Work Zones through mid October?)



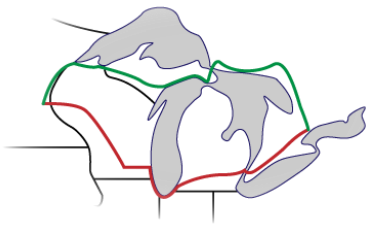




Great Lakes Regional Transportation Operations Coalition

Upcoming Events

- February 6-7: Mid-West Truck & Trailer Show
- February 10: GLRTOC Monthly Call
 - 2nd Tuesday of each month
- February 18: LMIGA Meetings
- May: North/West Passage, AASHTO
- August: NRITS, MAASTO
- September: Ohio Freight / MAFC, AASHTO
- October: GLRTOC Annual Meeting in Toronto



Great Lakes Regional Transportation Operations Coalition

For more information, please visit:
www.glrto.org

Or contact:

Peter C. Rafferty, PE, PTOE, AICP
GLRTOC Administrator

Wisconsin Traffic Operations and Safety (TOPS) Lab

Office: 608-890-1218

Cell: 608-516-9382

Email: prafferty@wisc.edu